

The Human Energy Field in Relation to Science, Consciousness, and Health

By Gloria Alvino

1. INTRODUCTION

"If we do not expect the unexpected, we will never find it." - Heraclitus

The science and art of medicine that was initially one, and then split into two, are now approaching reunion. The healing science that became traditional medicine and alternate medicine is slowly becoming the healing sciences. The history of this topic is extensive -- extending back thousands of years.

5000 years ago, ancient spiritual tradition of India spoke of a universal energy called prana. This universal energy is the source of all life. The breath of life moves through all forms to give them life. Yogis work with this energy with breathing techniques, meditation, and physical exercise to produce altered states of consciousness and longevity.

3,000 years ago, the ancient Qigong masters in China were practicing their meditative discipline to balance and invigorate the human energy field. They called this vital energy that pervades all forms, both animate and inanimate, Qi. The Qi is the vital energy of the body; while gong means the skill of moving this Qi and working with it. Practitioners use mind control to move and control the Qi to not only improve health and longevity, but also to enhance awareness, psychic powers, and spiritual development.

The ancient Qigong masters also developed Tai Chi, Kung Fu, and the martial arts. In addition, they made the first model for acupuncture. Acupuncturists insert needles, or use moxa, or put magnets at specific acupuncture points to balance the yin and yang of the human energy field. When the Qi is balanced, the entity has good health. When the Qi is unbalanced, the entity has poor or impaired health.

The Kabbalah, the Jewish mystical teachings written about 538 B.C., calls these energies the astral light. Later on, Christian paintings and sculptures show a halo around the head of Christ and other spiritual leaders. Similarly, we see this halo on statues and paintings of Buddha, and also see energy or light coming from the fingers of many of the gods of India. In fact, there are references made to the phenomenon of the

human energy field (HEF) or the aura of the body, in 97 different cultures, according to John White in his book "Future Science."

The history of medicine similarly reflects a fascination with the observation of the HEF and its study. Back in 500 B.C., the Pythagoreans believed that there is a universal energy pervading all of nature. They taught that its light could effect cures in sick patients.

In the 1100's, Liebhault said that humans have an energy that can react on someone else's energy, either at a distance or close by. According to Liebhault, a person can have either an unhealthy or a healthy effect on someone else -- just by being present. The HEF of one person may be harmonious, or it may be discordant with another. The HEF of one person may be nurturing, or it may be draining to the HEF of another.

In the 1800's, Mesmer, the father of modern hypnotism, suggested that a field similar to an electromagnetic field might exist around the human body. Mesmer suggested that the power of this electromagnetic field, which he believed behaved as a fluid, might also be able to exert influence on the field of another.

In the mid-1800's, Count Von Reichenbach spent 30 years experimenting with the human energy field, which he called the odic field. He found that this field showed many properties which were similar to the electromagnetic field described by James Clark Maxwell in the early 1880's.

However, Von Reichenbach also showed that with the odic force, like poles attract. In other words, like attracts like. In his work, "Physico-physiological Researches on the Dynamics of Magnetism, Electricity, Heat, Light, Crystallization, and Chemism, In Their Relation to Vital Force", printed in New York in 1851, Von Reichenbach showed that electropositive elements gave his subjects feelings of warmth, and that this produced unpleasant feelings. In the reverse, electronegative elements produced cool and agreeable feelings.

He also found that the odic field could be conducted through a wire. It traveled slowly at 13 feet per second. This speed depended on the density of the wire rather than its conductivity. He showed that part of this odic field could be focused like a light through a lens, while another part of this odic field would flow around the lens, like a candle flame flows around something placed in its path. Air currents would also move this part of the odic field. This suggests a composition similar to a gas. Von

Reichenbach's experiments suggest the odic or auric field is energetic, like a light wave, and also particulate, like a fluid. Also, he showed the right side of the body as being a positive pole, and the left as negative. This agrees with the ancient Chinese principles of yin and yang.

2. MODERN STUDIES OF HEF HEF Photography

Walter Kilner - Interest in the HEF was mounting in the medical community in the 1900's. In 1911, Walter Kilner, M.D., from St. Thomas Hospital in London, reported on seeing the HEF, or aura, as he called it. Looking through glass screens stained with dicyanin dye, he saw a glowing mist around the body in three distinct zones:

1. A 1/4 inch layer closest to skin;
2. A more vaporous layer, 1 inch wide, streaming perpendicularly from the body;
3. A delicate exterior luminosity with indefinite contours, about 6 inches wide.

In his work "The Human Aura" published in New York, 1965, he states that the appearance of the aura differs from person to person, depending on their physical, mental, and emotional states. Kilner actually developed a system of diagnosis based on the consistent differences he found in persons suffering a particular disease. He successfully treated many conditions, including epilepsy, liver disease, tumours, appendicitis, and hysteria. Research based on his work continues to this day in Europe.

Semyon Davidovich Kirlian - In 1939 in Krasnodar, near the Black Sea in Russia, Semyon Davidovich Kirlian, an electrician, and his wife, Valentina Kirlian, a teacher and journalist, became fascinated by the sight of a tiny flash of light which occurred between the electrodes of an electrotherapy machine and the skin of a patient. Other Russian scientists had also noted this energy, but ignored it.

The equipment and procedures they finally developed were to record on film this luminous energy emanating from the physical body -- the HEF. They invented a new type of photography, and had more than fourteen patents. The original system photographed static images of fingers or

conventional microscopic equipment. He invented a microscope which he called the somatascop. It has a magnification of 30,000 times, and a resolution of 150 angstroms to study these particles of dancing light.

His somatid theory states that cell division cannot take place without the presence of this tiny life force or energy particle that he calls the somatid. Naessens "believes that the somatid is the original spark of life, the pinpoint where energy condenses into matter." According to Naessens, the "somatid represents the manifestation of cosmic energy in a tiny, moving dot of physicality," as printed in "A New Answer to Cancer" in 'Well-Being', September/October, 1993.

HEF Light Emissions Studies

Bio-Energetics - Dr. John Pierrakas and Eva Pierrakas have developed a system of diagnosis and treatment of psychological disorders based on visual and pendulum-derived observations of the HEF. The information from these observations combined with body psychotherapeutic methods eventually developed into Bio-Energetics. The process called Core Energetics was delineated in a publication "The Core Energetics Process", in 1977.

Dr. Pierrakas work suggests that the light emissions from the human body are closely related to health. There is a need to quantify these light emissions with reliable, standardized light measuring instruments to make this available to the medical profession for clinical diagnosis and treatment.

Dr. Richard Dobrin, Dr. John Pierrakos, and Barbara Brennan -- published "Instrumental Measurements of the Human Energy Field" in 1978. They measured the light level of a wave length of around 350 nanometers in a darkroom before, during, and after there were people in that room. Results show a slight increase of light when people are in it. When someone feeling exhausted and full of despair was in the room, the light value actually fell. With a colorizer they were able to show part of the auric field, or the HEF, on black and white television.

Hiroshi Motoyama - has measured low light levels coming from people who have practiced yoga for many years. He did this with a movie camera in a darkroom. Also, he studied the strength of a sender's and a receiver's energy meridians before and after treatment. Most of the time, the sender's energy level dipped and then rose again. Also, the energy at

the heart chakra of the sender or healer increased after treating a patient. Refer to his publication "The Functional Relationship Between Yoga Asanas and Acupuncture Meridians" 1979 for exercises that he has developed to impact on the HEF.

Dr. Valorie Hunt - and colleagues at UCLA, published "A Study of Structural Neuromuscular Energy Field and Emotional Approaches", which is a study of the effects of Rolfing on the body and the psyche. She placed electrodes on the skin to record the low millivoltage signals from the body during rolfing sessions. Rosalyn Bruyere observed the auras and recorded her observations of both the rolfer and the patient. Breyere's observations were recorded on the same tape as the electronic data. She described the color, size, and energy movements of the chakras, and auric clouds, or HEF, involved.

Scientists then mathematically analyzed the wave patterns recorded by a Fourier analysis and a sonogram frequency analysis. The wave forms and frequencies reported by Rosalyn Bruyere correlated specifically with the colors reported. When Breyere saw blue in the HEF at a specific location, the electronic measurements would always show the characteristic blue wave form and frequency in the same location.

Hunt repeated this experiment with seven other aura readers. Each of the seven also saw auric colors that correlated with the same frequency wave patterns. In 1988, the results of their research showed these color and frequency correlations. Dr. Hunt says, "Throughout the centuries in which sensitives have seen and described the auric emissions, this is the first objective electronic evidence of frequency, amplitude and time, which validates their subjective observation of color discharge."

HEF Electromagnetic Field Studies

Dr. Robert Becker - of Upstate Medical School. mapped a complex electrical field on the body that was shaped like the body and the central nervous system. He named this field "The Direct Current Control System" in his publication of the same name in 1962. He found that this field changes shape and strength with physiological and psychological changes. Continuing his experiments through 1979, he found particles the size of electrons moving through this field.

Dr. Zheng Ronliang of Lanzhou University in China, in "Scientific Research of Qigong", measured the Qi radiated from the human body by

foundation for inner security." -- Albert Einstein, N.Y. Post, November 28, 1972.

To Part One

Introduction

We are products of our western scientific heritage. This has hindered our growth into full awareness that we are much more than we seem. Now, as science expands into new theories, there will be the discovery of new phenomena. We may not be able to explain the phenomena with the existing theories. New theories must be postulated to cover all of the knowledge. New experiments must be designed and performed until we get agreement between experimentation and new mathematical proof. Then the new theories may be accepted as physical laws. When we finally incorporate these new laws into our daily life, we will begin to see ourselves differently.

Much is changing in the science of physics, with publications of Bohm, Gabor, Pribram, Bell, Bohr, Sheldrake, Watson, Sarfatti, Briggs, Wilber, Peat, Prigogine, Stengers, Rothenberg, Loye, Capra, Engler, Eccles, Acterberg, etc. adding to our information and inspiration. Newtonian physics encouraged science to focus on the study of the physical world. Now, as theories have developed on relativity, the electromagnetic theory, the particle theory, and quantum physics, we can better see the connection between scientific, objective descriptions of our world, and the world of subjective human experience.

The present scientific view of reality currently supports the idea that we are composed of energy fields, and presents a holographic view of the universe. In this universe all things are interconnected.

Still, we continually tend to depict the universe as a huge mechanical system, running according to Newton's laws of motion. These laws held firm the ideas of absolute time and space. Everything could be described objectively. Even though Newton doubted his original theory before his death, the Newtonian laws ruled our thinking from the late 17th through the 18th, and the 19th century.

Much of our basic lives is still managed by this outmoded system of thought. Everything is still quite linear. But now, approaching the turn of the century, is science ready to embrace new perspectives, theories, and realities?

Field Theory

The study of the human energy field (HEF) owes a debt of gratitude to Luigi Galvani, an Italian physiologist whose experiments in the 1700's led to the discovery that electricity may result from chemical action. This marked the first time science recognized that electricity might exist as waves capable of traveling over distances. Before this discovery, only static electricity was recognized and described.

In the early 1800's, Michael Faraday and James Clerk Maxwell proposed a new type of physical electromagnetic phenomena that could not be described by Newtonian physics. This led to the concept of a field, which was described as a condition in space that has the potential of producing a force. Each charge creates a disturbance or a condition around it, so that the other charge, if present, feels the force. Thus their Field Theory; the concept of a universe filled with fields that create forces that interact with one another.

Relativistic Theory

In 1905, Albert Einstein shattered the Newtonian world view. Einstein's Special Theory of Relativity says that space and time form a fourth dimensional continuum, "space-time." Also, his theory holds that time is relative; not linear, and not absolute. Two observers will order events differently in time if they are moving at different velocities in relation to the observed events. All measurements of time and space lose their absolute significance. Both now become elements to help describe a phenomenon.

It is time to stop dismissing all experience which is outside our old Newtonian way of thinking. We must broaden our framework of reality. Other cultures have already done so. Native American culture did not use clocks. They divided time into the Now, and All Other Time. The Aborigines of Australia also have two kinds of time: the Passing Time and the Great Time. The Great Time has sequence, but cannot be dated. Like them, we need to stop using the absolute parameters.

Quantum Theory

In 1920, physicists asked nature a question, and nature answered with a paradox.

Physicists somehow knew that paradox is part of the intrinsic nature of the subatomic world. So they set up an experiment which proves that light is a particle. A small change in the experiment then proved that light is a wave. We thus moved into a universe based on the concept of both/and; rather than the old idea of either/or.

At the turn of the twentieth century, Max Planck discovered that the energy of heat radiation is not emitted continuously, but in "energy packets", called quanta. These light quanta are accepted as being particles. A particle is an energy packet. On the subatomic level, matter in nature is mutable. On this subatomic level, matter does not exist absolutely. Rather it shows tendencies to exist.

Physicists found that particles can simultaneously be both waves and particles. In effect, they are saying there is really no such thing as a thing. What they used to call things, are really events or paths that might become events. The universe is thus defined as a world of wave-like patterns of interconnectedness, a dynamic web of inseparable energy patterns, a dynamic, inseparable whole that always includes the observer. We are not separated parts from the whole. We are the whole.

Holographic Theory

The works of Pribram and Bohm combine to theorize that , "Our brains mathematically construct 'concrete' reality by interpreting frequencies from another dimension, a realm of meaningful, patterned primary reality that transcends time and space. The brain is a hologram, interpreting a holographic universe." (The Holographic Paradigm, by Ken Wilber 1982)

In his book, "The Implicate Order," Dr. David Bohm says that primary physical laws cannot be discovered by a science that attempts to break the world into parts. He writes of what he calls an "implicate enfolded order" which exists in an unmanifested state, and is the foundation on which all manifest reality rests. This manifest reality is "the explicate unfolded order."

Dr. Bohm suggests that the holographic view of the universe is the beginning point of understanding the implicate enfolded and the explicate unfolded orders. The hologram concept holds that every piece, however small, is an exact representation of the whole, and can be used to reconstruct the whole.

In 1971, Dennis Gabor received the Nobel Peace Prize for constructing the first hologram. It was a lens-less photograph in which a wave field of light scattered by an object was recorded as an interference pattern on a plate. He placed a laser beam -- coherent light -- on the hologram or photograph recording, and the original wave pattern was regenerated in a three dimensional image. Dr. Karl Pribram, during the course of ten years, showed that the human brain's deep structure is holographic. The

brain structures hearing, sight, smell, and taste holographically. He demonstrated this by the sophisticated analysis of temporal and spatial frequencies. Pribram states that the net result of the activities of the brain transcends time and space.

Karl Pribram's studies encompass the full spectrum of human consciousness. He proposes that the brain may depend on interactions at the junctions of the synapses or junctions between cells via a network of fine fibers on the axon branches. Nerve impulses manifest in slow waves. Information in the brain may be distributed as a hologram. This work can have profound effects on our scientific attitudes and our personal lives.

Wilber says, "For several years, those interested in human consciousness have been speaking wistfully of the 'emerging paradigm', an integral theory that would catch all the wonderful wildlife of science and spirit. Here, at last, is a theory that marries biology to physics in an open system: the paradoxical borderless paradigm that our schizophrenic science has been crying for. It is appropriate that this radical, satisfying paradigm has emerged from Pribram, a brain researcher-neurosurgeon who was a friend of the Western Zen teacher Alan Watts, and Bohm, a theoretical physicist, and the close friend of Krishnamurti and former associate of Einstein." (from "The Holographic Paradigm", by Ken Wilber 1982)



Superluminal Theory

In 1964, J.S.Bell published Bell's Theorem, which mathematically supports the concept that subatomic particles are connected in some way that transcends time and space. Anything that happens to one particle affects all other particles. This effect is immediate or superluminal. Einstein said that nothing travels faster than the speed of light. However, Bell's superluminal theorem is supported by experimentation. With Bell, we are now going beyond Einstein and beyond the wave/particle theory. As we learn how this instantaneous connectedness works, we might learn to be consciously aware of our instantaneous connection to one another and to the universe.

Robert Sheldrake, in his theory of morphogenetic fields, proposes that all systems are regulated not only by known energy and material factors, but also by invisible organizing fields. Whenever one member of a species

learns a new behavior, the causative field for that species is changed. If that new behavior is repeated long enough, its "morphic resonance" affects the entire species. Lyall Watson described this phenomenon in his description of the Hundredth Monkey Principle. Dr. David Bohm states that the same thing is true of quantum physics. One subatomic particle affects all subatomic particles

Jack Sarfatti says that the way superluminal connectedness exists is through a higher plane of reality. By reaching to a higher plane, we may be able to understand how instantaneous connectedness works. Safratti used these concepts to put forth his theory of multi-dimensional reality.

Experimental Proof

There are many experiments, especially in the last ten years in China, utilizing the special skills and powers of accomplished masters of various types of qigong (or qigung or chi gong, all pronounced chee gong). The Qi is the vital energy of the body, while gong means the skill of moving this Qi and working with it. Practitioners use mind control to move and control the Qi in order not only to improve health and longevity, but to enhance awareness, psychic powers, and spiritual development.

"Medical Applications of Qigong", by Kenneth M. Sancier, Ph.D., appears in the 1996 edition of *Alternative Therapies*. Also "The Effect of Qigong on Human Body Functions" from the Fifth International Symposium on Qigong, Shanghai, China;1994:179, by Sancier. Larry Dossey, M.D. also documents nonlocal events in "The Reach of The Mind, Healing Words: The Power of Prayer and the Practice of Medicine."

The practice of Traditional Chinese Medicine (TCM) is based on the premise that the Qi (ch'i, chi, or vital energy) of the body must be strong and in balance in order for the person to enjoy good health. During the last ten years in China, there are hundreds of scientific papers written on qigong in relation to its medical applications. There are an additional 837 abstracts published from international conferences on the subject. More than half that number are available in English, and thus accessible to Westerners.

Yan Xin, who is a physician of both Western and Traditional Chinese Medicine, teaches his combination of the ancient form of qigong -- with some changes -- to fill the needs of modern civilization. This discipline is called Yan Xin Qigong (YXQ). It is estimated that over 60,000 people in China practice qigong daily to maintain their health and achieve

longevity. A growing number throughout the world joins in this practice.

Dr. Yan Xin has conducted many scientific experiments in China. Emitting external Qi, Dr. Yan Xin has caused measurable changes in the properties of several types of living and non-living materials. During the last ten years, he has conducted experiments in three major categories based on experimental methodology:

1. The investigation of the nature of externally emitted Qi by the use of detectors and sensors of analytical instruments.
2. The monitoring and measurement of changes in physiological parameters and tissues of humans and other living organisms during the emission of external Qi.
3. The monitoring and measurement of changes in physiological parameters and tissues of humans and other living organisms during the circulation of internal Qi.
4. The study of the effect on cancer cells and various types of bacteria in vitro with the application of external Qi.

Since experiments using humans are difficult to assess because of the possibility of personal psychological interference, experiments were performed using tap water, normal saline solution (0.9%), glucose solution 50%, and medemycine solution 1.5 mg/ml. In these experiments, external Qi was directed at the chosen samples at ultra-long distances (over 1,000 kilometers). Results showed changes in the laser Ramen spectra of the tap water, the saline solution, the glucose solution, and the medemycine solution.

As published in "Laser Ramen Observation on Tap Water, Saline, Glucose and Medemycine Solutions Under the Influence of the External Qi of Qigong", a paper published in the Ziran Zazhi (Nature Journal) in Chinese, Vol.11, pp.567-571, 1988, the external Qi of Yan Xin Qigong (YXQ) had exerted influence over the structures of these solutions

From December, 1990, to June, 1991, new experiments were performed investigating the effects of external Qi and its effects on:

1. the radioactive decay rate of a radioactive element
2. the ultraviolet absorption of de-ionized water.

The results demonstrated that the external Qi emitted by Dr. Yan Xin (from the United States) could cause an astonishing change in the radioactive decay rate of the radioactive source ^{241}Am , and it significantly affected de-ionized water and changed its ultraviolet absorption spectrum.

The most extraordinary feature of this experiment was that the external Qi was transmitted from the qigong master in the United States to the laboratory in Beijing -- a distance over 10,000 kilometers. These positive results were published in a paper, "The External Qi Experiments from the United States to Beijing (China)" by Yan Xin in *Zhongguo Qigong (China Qigong)* in Chinese, Vol.1, pp.4-6, 1993.

The study of traditional Chinese medicine centers on the concept of the vital force or Qi as being not only within the human body, but in all living things. This Qi flows through the meridians of the human body to exchange, via the acupuncture points, with the Qi in the environment. Thus, the Qi of humans (the human energy field or HEF), and all living things, the earth, and the unified field are constantly exchanging.

HEF Scientific Theory -- Conclusion

Our Newtonian world of solid concrete objects is surrounded and permeated by a fluid world of radiating energy. It is constantly moving and changing; an ocean of dancing, spinning, flashing particles of light, energy, and information. Our linear way of thinking, seeing, and expressing needs to expand to accommodate this new reality.

It is time for a new paradigm, or model, of science, reality, and consciousness. It is time to bridge the gaps between science and alternate science, physics and metaphysics, and the external scientific experiment and the inner personal experience. This may well begin with the unification of the concepts of mind, energy, and consciousness. Using our minds to study energy, we may simultaneously define consciousness as one and the same.

Recently, in a lecture for the International Society for the Study of Subtle Energies and Energy Medicine, Dr. Larry Dossey recounted an old story:

"There was once an argument among the gods over where to hide the secret of life so that men and women would not find it. One god said: Bury it under a mountain; they will never look there. No, the others said, one day they will find ways to dig up mountains and will uncover it.

Another said: Sink it in the depths of the ocean; it will be safe there. No the others objected, humans will one day find a way to plumb the ocean's depths and find it easily. Finally another god said: Put it inside them; men and women will never think of looking for it there. All the gods agreed, and so that is how the secret of life came to be hidden within us."

Wholistic, or holistic, awareness remains beyond linear time and three dimensional space, and therefore is not easily recognized. We must practice this wholistic experience in order to recognize it. Our language, and our old ideas or paradigms, still limit our growth. Meditation and many other practices, like YXQ, are ways of transcending the limitations of the linear mind in order to experience the multidimensionality of interconnectedness, and to experience our oneness with the universal energy, the unified field, or consciousness.

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About The Author: Gloria Alvino, R.Ph., B.S. in Pharmacy, M.S. in Health & Human Sciences, is founder & president of Heart to Heart Associates, Inc. a charitable, educational, non-profit organization. HTHA is dedicated through education and the advocacy of research to help individuals improve their health and quality of life.